L10 ANSWER 5 OF 6 MEDLINE
AN 91131130 MEDLINE
DN 91131130 PubMed ID: 1704345
TI Amino acid sequences recognized by **T cells**: studies on a merozoite surface antigen from the FCQ-27/PNG isolate of Plasmodium falciparum.
AU Rzepczyk C M; Csurhes P A; Baxter E P; Doran T J; Irving D O; Kere N
CS Queensland Institute of Medical Research, Brisbane, Australia.
SO IMMUNOLOGY LETTERS, (1990 Aug) 25 (1-3) 155-63.
Journal code: 7910006. ISSN: 0165-2478.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199103
ED Entered STN: 19910405
Last Updated on STN: 20000303
Entered Medline: 19910320
AB Twenty-six overlapping peptides, spanning the entire FCQ-27/PNG sequence of the Plasmodium falciparum antigen known as merozoite surface antigen 2 were screened for their ability to induce the **proliferation** of peripheral blood lymphocytes (PBL) obtained from 12 donors living in Honiara, Solomon Islands where P. falciparum is endemic. A recombinant (r) form of MSA2, known as Ag 1609 was also screened in these assays and tetanus toxoid (TT) antigen was included as a control. The location of the **predicted T cell** determinants within MSA2 was examined using the algorithm, AMPHI and by scanning MSA2 for amino acid sequences showing the Rothbard motif. There were 13 **predicted** amphipathic helical sites and five examples of Rothbard sequences in the antigen. The location of these with regard to the peptides tested is shown. Nine of the 12 individuals responded to TT with high **stimulation indices** (greater than 4) being obtained in the majority of donors. Only three individuals responded to r-MSA2 with the **stimulation indices** (SI) in the range of 2.4-4.1. Peptides from both the constant and variable regions of MSA2 were recognized in the **proliferative** assays. However, the majority of the positive **proliferative** responses were to peptides which spanned the central variable region which included the two copies of the 32-amino-acid repeat occurring in the antigen. High SI comparable to those obtained to TT were seen in some individuals with some peptides. There was considerable variation between donors in number and nature of the peptides recognised and two donors did not respond to any of the antigens tested. The significance of these findings to vaccine development is discussed.

L10 ANSWER 6 OF 6 MEDLINE
AN 88318926 MEDLINE
DN 88318926 PubMed ID: 2457809
TI Antigenic peptides recognized by T lymphocytes from AIDS viral envelope-immune humans.
AU Berzofsky J A; Bensussan A; Cease K B; Bourge J F; Cheynier R; Lurhuma Z; Salaun J J; Gallo R C; Shearer G M; Zagury D
CS Metabolism Branch, National Cancer Institute, Bethesda, Maryland 20892.
SO NATURE, (1988 Aug 25) 334 (6184) 706-8.
Journal code: 0410462. ISSN: 0028-0836.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 198809
ED Entered STN: 19900308
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AB T-lymphocyte immunity is likely to be an important component of the immune defence against the AIDS virus, because helper **T cells** are necessary for the antibody response as well as the cytotoxic response.

We have previously **predicted** two antigenic sites of the viral envelope protein gp120 likely to be recognized by T lymphocytes, based on their ability to fold as amphipathic helices, and have demonstrated that these are recognized by **T cells** of mice immunized with gp120 (ref. 1). A peptide corresponding to one of these sites can also be induce immunity in mice to the whole gp120 protein. Because many clinically healthy seropositive blood donors have already lost their **T-cell proliferative** response to specific antigen, we tested the response to these synthetic peptides of lymphocytes from 14 healthy human volunteers who had been immunized with a recombinant vaccinia virus containing the AIDS viral envelope gene and boosted with a recombinant fragment. Eight of the 14 responded to one peptide, and four to the other peptide, not included in the boost. These antigenic sites recognized by human **T cells** may be useful components of a vaccine against AIDS. We also found a correlation between boosting with antigen-antibody complexes (compared to free antigen) and higher **stimulation indices**, suggesting a more effective method of immunization.